REMARKS

Claims 1-3, 5-7, 9-15, 17-21, 23 and 31 remain pending in this application. Claims 8, 24-27 and 30 have been canceled without prejudice or disclaimer. Claims 1, 20, 21 and 23 have been amended to recite the definition for Xb found, for example, in original claim 8, with the exception that the phrase "optionally having 1 to 3 substituents" has been deleted from the definitions of R^2 and R^3. A similar amendment has been made to the definitions of R^2 and R^3 in claims 1, 20, 21 and 23. Claim 17 has been amended to make it independent and to include embodiments of salts of the identified compounds. Claim 20 has been amended to limit the method to the treatment of type 2 diabetes in a mammal. No new matter has been introduced by these amendments.

Applicants acknowledge, with appreciation, the thorough and comprehensive examination of this application reflected in the Office action, and the indication that claims 13 and 17 are directed to allowable subject matter.

Rejections: § 112, first paragraph

Claims 1, 8, 20, 21, 23-27, 30 and 31 have been rejected under 35 U.S.C. § 112, first paragraph, because the limitation "optionally having 1 to 3 substituents" as it applies to the recitation of R2 and R3 allegedly fails to comply with the written description requirement. Solely in the interest of expediting prosecution, and without admitting to the propriety of this rejection, the identified phrase has been deleted from the description of R2 and R3 in the pending claims to render this rejection moot.

Claims 20, 21, 23-27 and 30 have been rejected under 35 U.S.C. § 112, first paragraph, because the specification is allegedly non-enabling for the treatment of certain disease conditions - specifically type 1 diabetes, type 2 diabetes or gestational diabetes (claim 20), hyperlipidemia (claim 21), impaired glucose tolerance (claim 23),

regulating retinoid-related function (claims 24-26), improving insulin resistance (claim 27), and modulating a GPR40 receptor function (claim 30). Solely in the interest of expediting prosecution of this application, and without acknowledging the propriety of the rejection, this rejection is rendered moot as to certain conditions by deletion of type 1 and gestational diabetes from claim 20, and cancelation of claims 24-27 and 30.

As to the remaining indications, the Office apparently is of the opinion that the subject matter of the claims is not supported by an enabling disclosure. To support this conclusion, the examiner asserts that lifestyle changes play a role in diabetes prevention and applicants have failed to describe how the present methods assist in such lifestyle modification. Similarly, the examiner asserts that the primary treatment for insulin resistance is exercise and weight loss, and applicants have failed to describe how the present methods assist in exercise and weight loss. However, even assuming, arguendo, that these observations are accurate, this does not provide a reason to doubt the objective enablement of the claimed methods or to question whether the claimed compounds are effective for the treatment of the claimed conditions.

As to the prior art relied on by the Examiner, none of it supports a reason to question the enabling disclosure of the present application as to the claimed indications. Kebede et al. is not relevant as the claim based on GPR40 antagonism has been canceled, Calkin et al. actually shows that the compounds investigated (but not within the scope of the present claims) had equivalent renoprotective actions in experimental diabetes, but suggested the need for further research, and Wieser et al. suggests that some PPAR agonists may become beneficial drugs for pregnancy-specific diseases, but that the compounds investigated (also not within the scope of the present claims)

produced some unfortunate side effects according to some experimental and clinical data. The need for further research to obtain a commercial product or the existence of unfavorable side effects have long been established as an insufficient basis for denying patentability on the ground of an insufficient disclosure. *In re Anthony*, 162 USPQ 594, 604-607 (CCPA 1969). As pointed out in Anthony, a fundamental purpose of the patent system is to stimulate the investment of additional capital needed for the further development and marketing of the invention - to deny applicants a patent because further research and development may be necessary before marketing may take place would effectively defeat that objective of the patent system. Similarly, whether any side effects pose a safety risk to the consumer is properly left to the regulatory proceedings and authority of the FDA, not the USPTO. Accordingly, the examiner has not established a prima facie case of a nonenabling disclosure.

In addition, please consider the following additional information when reconsidering this rejection. First, the present specification (Test Example 1 - starting at page 102) shows that compounds of the present invention decreased the blood glucose level of KKA^y mice - a model of obese and non-insulin dependent diabetes (type 2 diabetes). These results are stated to show the compounds of the present invention possess excellent hypoglycemic and hypolipidemic actions, and are useful in treating diabetes, hyperlipidemia and impaired glucose tolerance.

To further support the view that a person skilled in the art would consider the test results reported in the specification to be relevant and the claimed inventions to be enabled by the present specification, please consider Iwatsuka et al., "General Survey of Diabetic Features of Yellow KK Mice," Endocrinol, Japan 17(1), pp. 23-35 (1970)

[Attachment 1] and Kimura et al., "A Genetically Diabetic Model 'KK-CA^{y} Mice for a Pharmacological Assay," Endocrinol, Japan 26(2), pp. 185-195 (1979) [Attachment 2]. Both Iwatsuka et al. (particularly the Abstract and last paragraph of discussion at p. 31) and Kimura et al. (particularly Abstract and last paragraph of discussion at p. 194) show that KK mice having the yellow obese gene (A^{y}) have long been recognized as a suitable animal model that reflect human diabetic symptoms and are suitable for assaying anti-diabetic drugs. Accordingly, the results of Test Example 1 using KKA^{y} mice are indicative that the compounds of the present invention are useful for the treatment of the diseases recited in claims 20 and 23. Accordingly, the rejection should be withdrawn as to these claims.

Similarly, KKA^{y} mice show diabetic symptoms and adiposity, as well as hypertriceridemia and hypercholesterolemia. See Abstract and Table 1 of Alberts et al., "Selective Inhibition of 11β-Hydroxysteroid Dehydrogenase Type 1 Improves Hepatic Insulin Sensitivity is Hyperglycemic Mice Strains," Endocrinology 144(11), pp. 4755-4762 (2003) [Attachment 3]; and Deprés et al., "HDL-cholesterol as a marker of coronary heart disease risk: the Quebec Cardiovascular Study," Atherosclerosis 153, pp. 263-272 (2000) [Attachment 4], describes (Abstract) that suppression of hyperlipidemia symptoms leads to the suppression of the risk of ischemic heart diseases. Test Examples 1 and 2 of the present specification (pp. 102-105) show that compounds of the present invention decreased the blood triglyceride level and total cholesterol level of KKA^{y} mice. The present specification contains both the disclosure and data that show that compounds of the present claims are expected to be useful for

the treatment of hyperlipidemia (claim 21). Accordingly, the rejection should be withdrawn as to this indication also.

Finally, the examiner has suggested that the amount of guidance provided for dosage range is very limited. However, as noted at page 67, lines 6-14, the dose of the compound administered varies depending on a variety of factors - including administration subject and route, target disease and clinical condition - well known to those skilled in the art. In addition, some general dosage ranges also are provided, including a suggestion that a preferable dosage is between 0.025 to 0.5 mg/kg body weight. It is respectfully submitted that a person skilled in this art could readily determine from this guidance a suitable dosage for any compound and disease condition claimed without undue experimentation. The concern about dosages does not support the examiner's rejection of lack of enablement. Accordingly, this rejection should be withdrawn for this additional reason.

Rejection: § 112, second paragraph

Claims 1-3, 5-7, 9-12, 14, 15, 18-21, 23-27, 30 and 31 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because Xb and Yb cannot both simultaneously be a bond without intervening atoms. Although such a literal reading of the claim may give rise to such a possibility, it would not be reasonable to interpret the claim in such a manner from the perspective of a person skilled in the art. A claim is not indefinite when its meaning is discernible to one of ordinary skill in the art when construed according to correct principles. *Metabolite Labs, Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1084, 1089 (Fed. Cir. 2004); MPEP 2173.02. Nevertheless, in the interest of expediting prosecution of this application,

these rejections are rendered moot by deletion of "bond" from the definition of Xb in each claim subject to this rejection.

Rejections: § 102(b)

Claims 1, 2, 7, 9, 11, 12, 14, 15, 18 and 19 have been rejected under 35 U.S.C. § 102(b) over Zhang, et al. (Bioorg. & Med. Chem. Letters (2000)).

Claims 1-3, 11, 12, 14 and 15 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over Takalo et al. (U.S. Patent No. 6,080,839).

Claims 1, 2, 5, 7, 9, 11, 12, 14, 15 and 19 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over Didierlaurent et al. (U.S. Patent No. 5,942,622).

Claims 1, 2, 5, 7, 9, 11, 12, 14, 15, 18 and 19 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over Fortin et al. (WO 96 12706).

Claims 1, 2, 5, 7, 8, 12, 14 and 15 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over Odenwaelder et al. (U.S. Patent No. 5,441,857).

Claims 1-3, 5, 7, 9, 11, 12, 14, 15, 18 and 19 have been rejected under 35 U.S.C. § 102(b) over Hamanaka et al. (U.S. Patent No. 5,378,716).

Claims 1-3, 5, 7, 9, 11, 12, 14, 15, 18 and 19 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over Meanwell et al., J. Med. Chem. (1992).

Claims 1, 2, 5, 7, 11, 12, 14, 15 and 19 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over Dorn et al. (DD 294481).

Claims 1-3, 5, 7, 9, 11, 12, 14, 15, 18 and 19 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over Meanwell et al. (U.S. Patent No. 4,956,379).

As to each of these rejections, they have been avoided by amendment of the claims to include the recitation in claim 8 regarding the definition of Xb. Although claim

8 was rejected over Odenwalder et al., it is respectfully submitted that claim 8 was not anticipated since neither the cited compound nor any other compound described in that patent can simultaneously meet the requirements of Ya and Xb. Accordingly, these rejections should be withdrawn.

Rejections: § 102(e)

Claims 1-3, 5, 7, 9, 11, 12, 14, 15 and 18-20 have been rejected under 35 U.S.C. § 102(e) over Parmee et al. (WO 2004069158), allegedly entitled to a prior art date of January 27, 2003.

Claims 1-3, 5, 7, 9, 11, 12, 14, 15 and 18-20 have been rejected under 35 U.S.C. § 102(e) over Conner et al. (WO 2004063166), allegedly entitled to a prior art date of January 6, 2003.

Pursuant to MPEP 201.15, applicants have avoided these rejections based on the cited PCT publications by claiming, under 35 U.S.C. § 119, the benefit of priority to applications filed in Japan: JP Application 2002-151405, filed 05/24/2002; JP application 2002-287161, filed 09/30/2002; and JP Application 2003-16748, filed 01/24/2003. Applicants have filed with this reply a translation of each priority document along with a statement of the translator attesting to its accuracy. Support for claim 1, as amended, can be found in Application No. 2002-287161, filed September 30, 2002 (i.e., before the prior art effect dates of either WO 2004069158 and WO 2004063166) at least as follows (references are made to the English-language translation): pages 1, 2, 21, 22, 47 and 48. Accordingly, these rejections should be withdrawn.

Prompt and favorable reconsideration of this application is requested, together with a timely notice of allowance.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: January 21, 2009

By: Charles E. Van Horn

Charles E. Van Horn
Reg. No. 40,266

Attachments:

1. Iwatsuka et al., Endocinol. Japan 17(1) pp. 23-35 (1970)
2. Kimura et al., Endocinol. Japan 26(2) pp. 185-195 (1979)
3. Alberts et al., Endocrinology 144(1) pp. 4755-4762 (2003)
4. Després et al., Atherosclerosis 153 pp. 263-272 (2000)
5. English-language translations of:
   JP 2002-151405
   JP 2002-287161
   JP 2003-16748